

REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of August 15, 2002 is respectfully requested.

The Examiner has rejected claims 15-28 as being unpatentable over the Nakada reference (USP 5,792,302) in view of the Nishibori reference (USP 4,505,869), the Young, Jr. reference (USP 3,802,291), the Cho reference (USP 6,214,154), and the Uchida reference (USP 4,581,954). However, independent claim 15 (as well as dependent claim 28) has been amended as indicated above, and new dependent claim 29 has been added. Thus, in view of the reasons discussed below, it is respectfully submitted that claims 15-29 are clearly patentable over the prior art of record.

As explained on pages 1 and 2 of the substitute specification, conventional steering wheels that have been made in order to appear like natural wood, and particularly those conventional steering wheels made by injection molding, do not have either the feel or the appearance of high-grade wood, including a streak pattern extending along the rim of the steering wheel to imitate a grain pattern of the high-grade wood.

Thus, the present invention has been developed to overcome the above-mentioned problems of conventional steering wheels. Specifically, the present invention is directed to a steering wheel comprising an annular rim section. The annular rim section includes a core and arcuate-shaped and elongated rim elements mounted on the core. Each of the elongated rim elements is formed of thermosoftening synthetic resin material blended with woodmeal so as to form an annular streak pattern on an outer surface of each of the elongated rim elements and *extending along a longitudinal axis of each of the elongated rim elements*. Thus, the steering wheel of the present invention has an annular rim section that includes longitudinal streaks that accurately replicate the grain pattern of wood.

In the Office Action of August 15, 2002, the Examiner asserts that the Nakada reference discloses a steering wheel that comprises an annular rim including arcuate rim elements, but acknowledges that the Nakada reference does not teach that the rim elements are formed of thermosoftening synthetic material blended with woodmeal so as to form an annular streak pattern

on an outer surface thereof. Nonetheless, the Examiner asserts that the Nishibori reference teaches this feature. However, as explained above, independent claim 15 has now been amended to clarify the streak pattern. Specifically, claim 15 now recites that the annular streak pattern is formed on the outer surface of each of the elongated rim elements and *extends along the longitudinal axis* of each of the elongated rim elements. As will be explained below, it is submitted that the Nishibori reference does not disclose this feature.

As an initial matter, the Examiner refers to column 1, lines 44-48, which explains that the product of the Nishibori reference has "surface characteristics identical with those of wood in actual use, namely color, touch, finish coating, adhesion, laminating, etc." However, the surface appearance of a piece of wood will vary greatly depending on various factors, such as the type of wood used and the angle of the cut through the wood. For example, in some types of wood, it is very difficult to identify any grain structure in the wood (especially if the wood is a composite wood material). Moreover, if the wood is cut against the grain, the grain pattern of the wood will appear as circles, rather than streaks. Thus, simply because the Nishibori reference discloses that "surface characteristics identical with those of wood in actual use" is achieved does not mean that an annular streak pattern extending along the longitudinal axis of each of the elongated rim elements will be achieved. In fact, the Nishibori reference does not disclose or even suggest that an annular streak pattern is formed on an outer surface of each of the elongated rim elements and extending along a longitudinal axis of each of the elongated rim elements, as recited in amended independent claim 15.

Moreover, the Nishibori reference teaches that the woodmeal added to the thermoplastic resin binder is prepared by mixing woodmeal with a thermosetting urea resin. The Nishibori reference then teaches that the aggregate is *dried* so as to reduce the water content therein (see column 2, line 66 through column 3, line 13; and column 4, lines 61-68). If this dried aggregate is added to the thermoplastic resin binder and extruded as described in the Nishibori reference, the dried woodmeal aggregate would not form a streak pattern on the surface of the product due to, among other reasons, the friction of the woodmeal aggregate. Thus, not only does the Nishibori reference not explicitly disclose or even suggest that rim elements are formed by blending

woodmeal with a thermosoftening synthetic resin so as to form annular streaks along a longitudinal axis of each of the rim elements, but the Nishibori reference also teaches a process of forming the rim elements that would *prevent* formation of annular streaks as recited in amended independent claim 15.

The Young, Jr. reference, the Cho reference and the Uchida reference also do not disclose or suggest elongated rim elements formed of thermosoftening synthetic resin material blended with woodmeal so as to form an annular streak pattern extending along a longitudinal axis of each of the elongated rim elements. Therefore, one of ordinary skill in the art would not be motivated by any of these references to modify the Nakada reference or to combine the references so as to obtain the invention recited in amended independent claim 15. Accordingly, it is respectfully submitted that amended claim 15 and the claims that depend therefrom are clearly patentable over the prior art of record.

On page 5 of the Office Action, the Examiner indicated that the Uchida reference discloses a first rim element 11 having a longitudinal notch formed therein for receiving a core 7, and a second rim element 114 having a thickness (near the core 7) substantially equal to a diameter of the core 7, as recited in original dependent claim 28. However, in order to further clarify the differences between the present invention and the Uchida reference, dependent claim 28 has now been amended. Specifically, as recited in amended dependent claim 28 and shown in Fig. 5B, the second rim element 41b, 42b has a *uniform* thickness substantially equal to a diameter of the core. In contrast, the component indicated by reference number 114 in the Uchida reference clearly does not have a uniform thickness substantially equal to a diameter of the core.

Finally, the Examiner's attention is also directed to new dependent claim 29, which recites features that further distinguish the present invention from the prior art.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. However, if the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact the Applicants' undersigned representative.

Respectfully submitted,

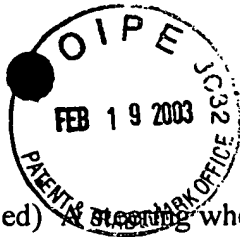
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15. (Amended) ~~A steering wheel~~ comprising:
an annular rim section including:

a core; and

arcuate-shaped and elongated rim elements mounted on said core, each of said elongated rim elements being formed of thermosoftening synthetic resin material blended with woodmeal so as to form an annular streak pattern on an outer surface of each of said elongated rim elements and extending along a longitudinal axis of each of said elongated rim elements.

28. (Amended) The steering wheel of claim 15, wherein said arcuate rim elements include a first rim element having a longitudinal notch formed therein for receiving said core, and a second rim element having a uniform thickness substantially equal to a diameter of said core and being fitted into said notch of said first rim element after said core.

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